WHAT IS CLAIMED IS:

1.   An image printing method for completing a print process of each pixel by making a plurality of main scans of a print head, which prints dots on a print
5   medium, with respect to the print medium, comprising:

a step of assigning, to a pixel of interest, a pattern used to determine which of the plurality of main scans is used to print a dot to be printed for the pixel of interest; and

10   a printing step of printing a dot on the pixel of interest in the main scan determined by the assigned pattern, and

wherein the assignment step includes a step of selecting one pattern from a plurality of patterns
15   corresponding to each of density levels on the basis of a density level of the pixel of interest, and assigning the selected pattern to the pixel of interest.

2.   An image printing method for completing a print process of each pixel by making a plurality of scans of
20   a print head, which prints dots on a print medium, with respect to the print medium, comprising:

a step of assigning, to each pixel, a pattern which specifies the number of dots corresponding to a density level of the pixel and scans used to print the
25   dots.

3.   An image printing method for completing a print process of each pixel by making a plurality of scans of

a print head, which prints dots on a print medium, with respect to the print medium, comprising:

an assignment step of assigning a pattern, used to determine which of the plurality of scans is used to print a dot to be printed for each pixel, to that pixel;

a generation step of generating a pattern of dots to be printed in each scan of the print head on the basis of the pattern assigned to the pixel; and

a step of printing dots on each pixel on the basis of the generated pattern.

4. The method according to claim 1, wherein a plurality of patterns are prepared in correspondence with each of the density levels of the pixel, and the assignment step includes a step of selecting one of the plurality of patterns corresponding to a density level of a pixel of interest randomly or in a predetermined order in accordance with the density level of the pixel of interest, and assigning the selected pattern to the pixel of interest.

5. The method according to claim 1, wherein the plurality of main scans include both forward and backward scans of the print head, and a pattern corresponding to a density level of a pixel which requires to print two or more dots is defined so that dots to be printed are distributed to both the forward and backward scans.

6. The method according to claim 1, wherein the plurality of scans include both forward and backward scans of the print head, and the pattern is defined so that dots to be printed are distributed to one of the

5 forward and backward scans.

7. The method according to claim 3, wherein the plurality of patterns corresponding to each of density levels that the pixel can assume are assigned so that densities printed in forward scans become equal to

10 densities printed in backward scans.

8. An image printing method for completing a print process of each pixel by making a plurality of scans of a print head, which prints dots on a print medium, with respect to the print medium, comprising:

15 a step of assigning a pattern, used to determine which of the plurality of main scans is used to print a dot to be printed for each pixel, to that pixel.

9. An image processing method for completing a print process of each pixel by making a plurality of main

20 scans of a print head, which prints dots on a print medium, with respect to the print medium, comprising:

a step of assigning, to a pixel of interest, a pattern used to determine which of the plurality of main scans is used to print a dot to be printed for the

25 pixel of interest, and

wherein the assignment step includes a step of selecting one pattern from a plurality of patterns

corresponding to each of density levels that the pixel

can assume in correspondence with a density level of

the pixel of interest, and assigning the selected

pattern to the pixel of interest.

5   10.   An image processing method for completing a print

process of each pixel by making a plurality of scans of

a print head, which prints dots on a print medium, with

respect to the print medium, comprising:

a step of assigning, to each pixel, a pattern

10   which specifies the number of dots corresponding to a

density level of the pixel and scans used to print the

dots.

11.   A printer for forming one pixel by one or a

plurality of dots printed by a predetermined number of

15   head scans, comprising:

a memory for storing one or a plurality of

patterns, each of which indicates an order of scans

that print dots for respective pixel values;

a generator for selecting one pattern from the

20   one or plurality of patterns stored in said memory in

accordance with a value of a pixel of interest, and

generating binary data to be printed for respective

scans; and

print means for controlling the head to print

25   dots for respective scans of the head in accordance

with the binary data.

12.   An image recording apparatus for completing a

print process of each pixel by making a plurality of
main scans of a print head, which prints dots on a
print medium, with respect to the print medium,
comprising:

5   a memory for storing a plurality of patterns,
each of which specifies the number of dots
corresponding to a density level of a pixel, and scans
used to print the dots;

        assignment means for selecting a pattern
10   corresponding to a density level of a pixel of interest
from the plurality of patterns stored in said memory,
and assigning the selected pattern to the pixel of
interest; and

        printing control means for printing dots on the
15   pixel of interest by the scan specified by the assigned
pattern.

13.   A computer program product for making a computer
generate data to be used in a printer for completing a
print process of each pixel by making a plurality of
20   scans of a print head, which prints dots on a print
medium, with respect to the print medium, comprising:

        a code of an assignment step of assigning a
pattern, used to determine which of the plurality of
scans is used to print a dot to be printed for each
25   pixel, to that pixel; and

        a code of a generation step of generating a
pattern of dots to be printed for respective scans of

the print head on the basis of the assigned pattern.

14.   The program product according to claim 13,
wherein the code of the assignment step includes a step
of selecting one of patterns corresponding to a density
5   level of a pixel of interest, and assigning the
selected one pattern to the pixel of interest.

15.   The program product according to claim 13,
wherein a plurality of patterns are prepared in
correspondence with each of the density levels of the
10   pixel, and the code of the assignment step includes a
step of selecting one of the plurality of patterns
corresponding to a density level of a pixel of interest
randomly or in a predetermined order in accordance with
the density level of the pixel of interest, and
15   assigning the selected pattern to the pixel of
interest.

16.   A computer program product for making a computer
generate data to be used in a printer for completing a
print process of each pixel by making a plurality of
20   scans of a print head, which prints dots on a print
medium, with respect to the print medium, comprising:

a code of a step of assigning, to each pixel, a
pattern which specifies the number of dots
corresponding to a density level of the pixel and scans
25   used to print the dots.